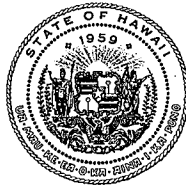


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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

February 12, 2009

TESTIMONY OF THE DEPARTMENT OF TRANSPORTATION

COMMITTEE ON TRANSPORTATION,
INTERNATIONAL & INTERGOVERNMENTAL AFFAIRS

COMMITTEE ON ENERGY & ENVIRONMENT

SENATE BILL NO. 1202,
RELATING TO TRANSPORTATION ENERGY INITIATIVES.

We **support** the intent of this bill, which is to reduce the transportation sector's dependence on petroleum-based fuels. This bill addresses many of the same concerns as Senate Bill No. 872, which is the Administration's Transportation Energy Initiative. Accordingly, the Department of Transportation (DOT) respectfully requests that this bill (Senate Bill No. 1202) be held in committee and that the Administration's Initiative, Senate Bill No. 872, be considered for passage in its place.

Senate Bill No. 1202 seeks to develop a transportation infrastructure for electric vehicles by requiring an aggressive timetable to replace fossil fuel vehicles with electric and alternative fuel vehicles.

While the DOT supports the intent of this bill, we do have several significant concerns, particularly with respect to the location of the charging units.

1. Highways. The DOT's highway system does not provide the proper location for battery exchange stations or electric vehicle charging outlets. The highway shoulder areas and right-of-ways do not provide sufficient space for safe battery exchange or charging operations. Moreover, such areas should only be used in cases of emergencies.
2. Senate Bill No. 1202 proposes to amend HRS Section 226-18(b)(7), by eliminating the phrase "by encouraging diversification of transportation modes and infrastructure." This presents a concern for the DOT. The DOT is preparing statewide

plans that include plans for non-motorized transportation, i.e., bikeways and pedestrian walkways. The development of these alternative facilities for non-motorized transportation is also important for energy efficiency. The DOT is concerned that the proposed deletion of above-quoted phrase will signal a legislative intent to no longer encourage the diversification of transportation modes and infrastructure. The DOT would take exception to such a position.

3. Airports and Harbors. The DOT is willing to consider having plug-in locations at our airport and harbor parking facilities. However, several concerns are raised.

The DOT is willing to allow private sector service providers to install plug-in locations at airport and harbor parking facilities, provided that these plug-in locations do not compromise security or the operations of the facility.

In addition, the DOT would prefer to not allocate separate and independent locations for the various providers. To this end, the DOT will work with any qualified private service provider who can install universal plug-in locations that can be utilized by other interested service providers as well. Therefore, each provider must be able to implement a system that enables their individual customers to be identified as such and allows for the accounting of their own electrical charges and their own customer billing.

Furthermore, because the provider will benefit by the revenues generated from the use of the plug-in stations, the provider should be responsible for the cost of installing, operating, and maintaining these plug-in stations.

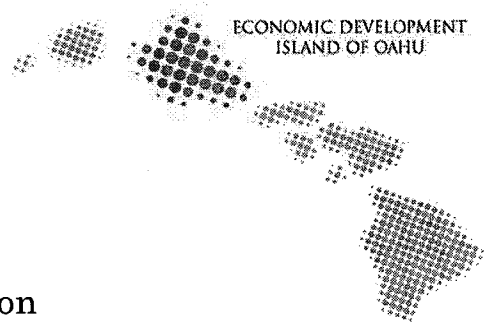
4. Finally, the permitting and installation of battery exchange stations and electric vehicle charging outlets in homes, businesses, public parking lots, and other buildings and facilities throughout the State are actions far outside the purview, authority, and resources of the DOT. Therefore, this task of developing and implementing the plan required by Section 9 of Senate Bill No. 1202 needs to be assigned to a more appropriate agency.

Thank you for the opportunity to testify on this very important measure.

February 12, 2009

Hawaii State legislature
State Capital
Honolulu, Hawaii 96813

LATE



Support Testimony on
S.B. NO. 1202

RELATING TO AEROSPACE DEVELOPMENT – SPACEPORT LICENSE

Committee on Energy and Environment
Senator Mike Gabbard, Chair
Senator J. Kalani English, Vice Chair

Committee on Transportation, International, and Intergovernmental Affairs
Senator J. Kalani English, Chair
Senator Mike Gabbard, Vice Chair

Thursday, February 12, 2009, 2:50 p.m., Conference Room 225

Enterprise Honolulu, the Oahu Economic Development Board supports SB 1202, establishing the development of non-fossil fuel transportation as a state policy goal and providing for the purchase and installation of electric vehicle charging infrastructure and alternative fuel refueling infrastructure.

Today there can be no more vulnerable place on earth than Hawai'i with 100% imported oil and 85% imported food dependency. Hawai'i now imports 100% of our oil, (33%) for electricity production, (33%) ground and marine transportation and (33%) aviation. The Department of Energy and the National Renewable Energy Lab reported that in 2008, the yearly cost of this imported oil to every man, woman and child in Hawai'i is over \$2,000 per capita. That's over \$8,000 a year for every household of 4.

The following projects are necessary to accelerate Hawai'i's transition to renewable energy and food security:

- Build the smart grid including the interisland marine cables so renewable off peak energy can be used for electric transportation alternatives.
- Align the permitting, licensing and Environmental permitting processes to expedite simultaneous development of the smart grid, while siting renewable energy projects and grid upgrades to support distributed generation, smart demand side management, and time of day billing.



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- Expedite the use of smart metering on every Hawai'i home, business, school, university and government building. This can also employ hundreds, perhaps thousands of workers annually with good paying "green collar" jobs.
- Accelerate the infrastructure development and incentives for electric cars including incentives for infrastructure, purchase, and renewable grid implementation.

For every electric vehicle replacing a fossil fuelled vehicle, Hawaii saves an average of 700 gallons of gasoline annually while increasing the use of off peak renewable energy. This helps bring more renewable energy to market faster while directly contributing to the reduction in fossil fuel use and green house gases.

The timing is right for these activities and this legislation takes a good first step in the process.

Enterprise Honolulu, the Oahu Economic Development Board, supports SB 1202.

A handwritten signature in black ink, appearing to read "John R. Strom". The signature is fluid and cursive, with a large initial "J" and "R".

John Strom

VP Director of Business Development & Technology

From: Dave Rolf [drolf@hawaiidealer.com]
Sent: Thursday, February 12, 2009 12:08 PM
To: ENETestimony
Subject: HADA testimony in support of the concept of SB1202 and SB1037 for hearing 2:50 p.m. Feb. 12, 2009 n Room 225

February 12, 2009

Testimony in SUPPORT OF THE CONCEPT of SB 1202 and SB1037
Relating to Transportation Energy Initiatives
SB 1037

Presented to the Senate Committee on Energy and Environmental Protection

At the hearing 2:50 p.m., Thursday, February 12, 2009
in Conference Room 225, Hawaii State Capitol

Submitted by David H. Rolf, for the Hawaii Automobile Dealers Association
Hawaii's Franchised New Car Dealers

Chair Gabbard and members of the committee,

HADA stands in STRONG SUPPORT OF THE CONCEPT OF INCENTIVES for purchase of infrastructure equipment which can facilitate a transition to vehicles which can run on electricity generated by Hawaii's abundant natural resources of wind, wave, and sun energy.

We would support SB 1202 and SB1037 outright if immediate measures can be taken to strongly connect the effort for all the infrastructure, funding, permitting, electric vehicles, and public education that is needed for success of the electric car.

Without an immediate and significant coordinated effort for the electrification of the car in Hawaii, we will end with separate unconnected parts. Like unconnected wires. And like an engine with an incomplete electrical circuit, it won't run.

The mathematics of eliminating fossil fuel in Hawaii is enticing:

- 1) We have a \$66 billion Hawaii economy
- 2) State tax revenues, reflecting losses in the State GDP, are losing ground by about 2%
- 3) In our view, after further declines, these losses will subside and climb back to 0% growth by the end of the year, perhaps by as late as mid-2010.
- 4) A healthy economy, though, requires 3% growth.
- 5) Elimination of \$2 billion in fossil fuels used by transportation and replacement with a locally-produced \$2 billion in clean energy, would, in itself, create a 3% growth.

So, how do we accomplish rapid transition?

- 1) The HADA board voted unanimously in August of 2007 to support the "fast-tracking" of wind energy permitting in Hawaii—so as to facilitate a transition to the electric car.

- 2) HADA supported the Abercrombie-Peterson bill, with its up to \$7,500 tax credits for electric vehicles --which was part of the national discussion in the Congress leading up to adoption of the Energy Bill (of 2007). The Energy Bill contains credits for:

Plug-in hybrid electric vehicles	\$2,500– \$7,500	The first 250,000 vehicles sold get the full tax credit (then it phases out like the hybrid vehicle tax credits). Effective January 1, 2009.
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- 3) HADA has supported adoption of major elements of the Hawaii Clean Energy Initiative – to transition Hawaii to 70% energy independence by 2030, but we think the movement to energy efficient vehicles should be more coordinated.
- 4) Automakers must be involved. HADA has sent letters to all CEOs of the Detroit Big 3 requesting their electric car models for the upcoming auto show. While our negotiations continue, we shared with these automakers Hawaii’s first-state-in-the-nation efforts toward implementing a grid of electric charge spots. We asked for their support.
- 5) HADA proposed a new business model for the Big 3 that involved the electric car, and a revolutionary penny-a-mile proposal. See our HADA expanded comments below:

The penny-a-mile concept and a new business model for the Big 3

In 1934, in the middle of the Great Depression, Pepsi-cola was struggling -- even with its switch to a 12-ounce bottle. Coca-cola, with its 6-ounce bottle at 10 cents, was still the dominant one in the market. Pepsi, though, soon slashed its price to 5 cents and saw its sales soar through the roof.

Today by using astute public policy we could let consumers drive to work at half price --only 5 cents a mile in eco-friendly electric-powered vehicles, compared to the current 10 cents a mile in today’s gas-powered cars. The features of the electric cars would be nearly identical to the gas-powered cars.

The concept requires Congress to create new public policy to be combined with currently available automotive technology and a new business model for the Big 3.

Occam’s razor, attributed to a 14th century Franciscan friar, and sometimes called the law of succinctness, is best summed by Einstein who said that “theories should be as simple as possible, but no simpler.”

The razor first appeared in Maimonides “The Guide for the Perplexed” and it thus seems to have application to the problems surrounding the Big 3 automakers who need to develop a workable business model against a perplexing backdrop of marketing, finance, and labor situations.

Without the \$25 billion in bridge financing from the federal government the Big 3 may file for bankruptcy. Such would cause an ensuing chain of bankruptcies which would include vendors, and many employees in the ranks of the two million American direct and indirect employees who depend on the auto industry for their livelihood.

The chain reaction and the subsequent so-call nuclear winter scenario would be far-reaching.

So, to avoid this, help the Big 3 become vibrant, and get consumers driving at half price per mile we need a big vision.

Half price is something every consumer understands; the “half price per mile driving” idea is indeed succinct.

Enter Shai Agassi, the software engineer from Palo Alto, who brings an audacious plan for switching America to the electric car.

His idea, though, is simple. Americans would buy full-featured electric cars and light trucks from a big list of familiar automakers. And these new plug-in electric vehicles, which some refer to as "the cars without tailpipes," would indeed have the same features of all the current cars and trucks but would operate on common household plug-in electricity.

But before anyone here gets too twitipated about the fact that much electricity in America is produced by oil-burning plants, we should point out that Mr. Agassi proposes that the cars charging overnight from the electric grid operate on "green electrons" like those produced by the big American wind farms envisioned by T. Boone Pickens, or the world-class wind resources on the islands of Lanai, Molokai, and Maui—which can charge vehicle batteries at a lower, off-peak charge at night. And still offer enough profit to Mr. Agassi's company to be worthwhile.

Such vision is shared by Hawaii's governor Linda Lingle who recently announced the Hawaii Clean Energy Initiative includes a bold plan to have 3,000 plug-in electric vehicles on the Hawaii roadways by 2010 and 50,400 electric vehicles by 2015.

The plan for Hawaii and the rest of America, however, would be severely impacted by the loss of American auto manufacturing.

GM already has plans to market the Volt plug-in electric sedan in 2010 and Chrysler has announced plans for 3 plug-in electric vehicles—one of which would launch in 2010. The Volt's 400-mile range includes 40 miles on one battery charge, backed up by a 360-mile range-extender gasoline engine. GM points out that almost 80% of America's car commuters have daily commutes that fall within that 40-mile battery range.

Nissan is already about to launch, a series of plug-in electric vehicles, with 120-mile battery ranges, for the streets of Tel Aviv and Copenhagen. And here's where Agassi comes in. Consumers in those cities don't need to purchase the expensive \$11,000 lithium-ion batteries because Agassi's company, Better Place, will install hundreds of thousands of 110-volt "charging spots" in the cities and provide the current cities service station networks with "switch-out" batteries in case drivers need them during the course of extended trips.

Agassi will sell "miles" on his battery plan much like cell phone companies sell annual minute-use plans. Better Place will provide a 10,000-mile plan, a 20,000-mile plan, etc. The real benefit for consumers is a dramatically lowered cost of ownership for full-featured electric vehicles, with similar features to the current cars on the road.

With these plug-in electric cars, and the right adjustments to public policy, drivers could be driving at half price, starting in 2010. Like in the Pepsi and Coke story, it would cost consumers only 5 cents per mile to drive a plug-in electric compared to 10 cents per mile to drive a similar gas car. It's a cool idea for cost-conscious drivers, not to mention a cool idea for a cooler planet.

Here's how the drive-at-half-price-per-mile works.

The recent 2008 price of a gallon of gas, in the third quarter, in the U.S. has been roughly \$2.40 / gallon. The current miles per gallon federal Corporate Average Fuel Efficiency (CAFE) standard for vehicles sold in the U.S. is roughly 24 miles per gallon, so the math thus is simple: That's 10 cents per mile. A 40-mile roundtrip commute is \$4.

A 4-hour 17-kwh overnight charge with a lowered rate of 12-cents/kwh would be roughly \$2.

That charge will propel a Volt electric vehicle around 40 miles. Of course there will be thousands of charge spots in the city, including thousands at workplace sites, and the Volt even has a 360-mile range-extender gasoline engine.

The \$2 a day for your electric commute is half price when compared to \$4 for gas.

And half price is a concept everyone understands.

But it gets better.

Besides the advantage of helping America get off its \$700 billion foreign oil habit, the Penny-a-Mile razor allows a quick replenishing of any federal loans given to the Big 3 automakers.

Here's how that part works. A new business model for the Big 3 would be created. Then the \$25 billion in federal loans to the automakers, made in exchange for automakers' stock—could be paid back multi-fold.

GM stock, for example, recently hit a 60-year low and is now below the 5-dollar range for one share.

Congress could encourage transition to the fuel-less transportation system simply by structuring a tax on foreign oil to allow gas cars to continue to operate at 10 cents a mile on average, while subsidizing "green energy" electricity, allowing plug-in electric vehicles to operate at 5 cents a mile.

The 5 cents compared to 10 cents marketing wizardry already demonstrated ruing the depression by Pepsi shows that consumers will go through the roof for half price.

But the concept gets even better.

As Automakers produce better cars capable of getting 60 miles on a charge—which is roughly 3 cents a mile—Better Place, with its sophistication in software, would provide half of the savings to the customers through lower-cost-per-mile plans. Automakers and auto dealers could each be provided \$500 per car on a 50,000-mile plan. That amount would double at 100,000 miles.

At the high level, automakers and dealers would receive a thousand dollars per vehicle.

Multiply this times half the 16 million new vehicles per year that could be produced for U.S. consumer use by 2015, and automakers would be receiving back \$8 billion a year. Dealers would also receive and split \$8 billion.

It's public policy that would start the automaker stocks bouncing back the moment the new business model and accompanying public policies were announced. Taxpayer dollars invested in the bridge loan stock purchase may be repaid with a multi-fold return.

We all know that the Gillette Safety Razor company made much more money from selling the blades than they ever did from the razors.

A three-fold return would be a \$75 billion pay back on the \$25 billion taxpayer dollars invested in the Big 3 bridge financing requested right now.

Right now consumers can already buy more than 100 transition vehicles-- the fuel-efficient 30+ mpg gas cars and the gas-electric hybrid vehicles—which all are value-priced, with easy low-interest financing options, now in dealer showrooms.

Since the electric vehicles won't really be plentiful until around seven years from now, these interim fuel-efficient cars provide the way to the future.

The lessons learned from the half price Pepsi and the simple, buy-the-miles idea from Shai Agassi, and an extension of that idea into a penny-a-mile rebate to auto dealers and car manufacturers could lead to excellent public policy decisions, a big retooling of the American auto industry and a rapid transition to electric vehicles and a big return for American taxpayers.

HADA requests that SB1202 and SB1037 be incorporated into an omnibus plan, along with tax credits for purchase of electric cars outlined in the national Energy Bill of 2007 and, along with other actions at the state level necessary to support the electrification of the car, and that such a coordinated effort move forward.

Respectfully submitted,

David H. Rolf

For The Hawaii Automobile Dealers Association, Hawaii's franchised new car dealers,
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